Technology Transfer Proposals

The Industrial Partnership Center (IPC) has responsibility for coordinating all technology transfer activities at LANL. All proposals involving work for non-federal sponsors, including funds-in agreements, user facility agreements, and cooperative research and development agreements (CRADAs), must be submitted through the IPC.

Funds-In Agreements

A Funds-In Agreement is a contract between DOE and a non- federal sponsor for work to be performed at a national laboratory. DOE/AL accepts the Laboratory proposal package, writes a contract, negotiates contract terms and conditions with the sponsor, and accepts funds on behalf of the Laboratory.

When contemplating work for a private company, university, state or local jurisdiction, or foreign government or company, the Project Leader or Principal Investigator (PI) should contact IPC at 5-3922.

Completed examples of the following forms, and blank sample forms are supplied in this chapter. The **Statement of Work** is prepared by the PI and submitted to IPC. Meanwhile, the sponsor must write a letter to DOE/AL/RETD requesting that LANL perform the proposed work. A **sponsor form letter** appears at the end of this chapter.

If the estimated cost is greater than $25K and the project is longer than 3 months in length, the sponsor may request incremental funding. In that case, the PI will work with IPC to prepare a **Spending Plan** (DOE uses this document to bill the sponsor). The **Proposal Financial Estimate Worksheet** is prepared by either the fiscal specialist in the PI's organization or by the IPC/FIN budget analyst.

The **DOE administrative overhead of 15.4% and depreciation of 7.2%** may be charged in addition to the full cost of the work itself, in cases where there is no benefit to DOE or if the agreement is proprietary in nature. However, IPC requests a waiver from payment of these fees in most cases. In cases of sale of excess computer capacity only, with no FTEs, the combined fee is 36.4% (administrative overhead of 15.4% and depreciation of 21%).

The total cost to the sponsor is calculated in a compounding process, where the base is multiplied by 1.0 plus the administrative overhead factor and the sum is multiplied by 1.0 plus the depreciation factor. As an example, on a non-computer program where LANL costs are $100K,

a) 100 x 1.154 = 115.4

b) 115.4 x 1.072 = 123.7

Total cost to the sponsor is $123.7K.

IPC staff assemble the proposal package, including all other required DOE forms. The PI is responsible for obtaining line organization approvals; IPC will get the program approvals, including the Controller's Office, and will then make the distribution.

User Facility Agreements

A User Facility Agreement is a contract between the Laboratory and a sponsor for use of a LANL experimental apparatus or research setup that has been designated by DOE as a facility that can be utilized by sponsors outside DOE. Examples of such facilities are the Van de Graaf accelerator and the Omega West Reactor.

There are two types of user facility agreements: proprietary and non-proprietary. In the proprietary type, the sponsor wants all rights to intellectual property and takes all data from the Laboratory. This type agreement must be approved by legal counsel at DOE/AL after preparation by IPC, and is charged both DOE administrative overhead fee of 15.4% and depreciation of 7.2% on the estimated cost of the work. The non-proprietary type agreement leaves all rights to intellectual property with the Laboratory, and is handled in the manner described below; the DOE fees are waived.

To generate a non-proprietary agreement, the manager of the user facility (after consultation with the sponsor) submits to IPC a statement of work and a cost estimate. IPC will prepare the agreement, obtain Controller's Office approval, and mail the agreement for signature and payment to the sponsor. When the signed contract and payment (in the form of a check or a purchase order) are received in IPC, the check or purchase order will be taken to FIN-3 for processing, and a program code (U5**) will be set up by the FIN/IPC budget analyst. The contact for these agreements in IPC is John Davies, 5-3088.

Cooperative Research and Development Agreements (CRADAs)

What is a CRADA?

A Cooperative Research And Development Agreement (CRADA) is a new and different type of agreement between the federal government and at least one non-federal entity. CRADAs were established by Congress with the National Competitiveness Technology Transfer Act of 1989 (NCTTA), whose purpose was twofold:

1. To enhance United States security by promoting technology transfer between Government-owned, Contractor-operated (GOCO) laboratories (such as LANL) and the U.S. private sector, and

2. To enhance collaboration between universities, the private sector, and GOCO laboratories to foster the development of technologies in areas of significant economic potential.

The NCTTA establishes technology transfer as a mission of LANL and other GOCOs. It means that the Laboratory now has the authority to enter into CRADAs with private industry, with approval by DOE. The NCTTA legislation permits the federal government to enter into agreements without many of the legal constraints placed on other statutory methods.

Under a CRADA, which can be used only for R&D efforts consistent with the program missions of the Laboratory, LANL may contribute personnel, services, facilities, equipment use, or other resources **with or without** reimbursement. LANL may not, however, contribute funds to the industrial partner.

The industrial partner may contribute funds (to the Laboratory), personnel, services, equipment, or other resources. A single CRADA may include one partner or many, and these may include other federal laboratories; however, there must be at least one non-federal participant. The CRADA may be suggested by either the Laboratory or the proposed industrial partner.

An important provision of the legislation allows the Laboratory, while involved in a CRADA, to negotiate licensing agreements with the private partner and to delay publishing commercially valuable information developed under the CRADA for up to five years. Qualifying information and innovations brought into and created through CRADAs may be protected from disclosure and are exempt from the Freedom of Information Act.

Guidelines for Constructing a CRADA

IPC staff members will work with the Laboratory technical groups and the industrial partner to create the **Joint Work Statement (JWS)**, which is a proposal to DOE Albuquerque Operations Office (DOE/AL) describing the scope and purpose of the proposed CRADA, and broadly assigning rights and responsibilities among the parties. "DOE Approval Procedures for Joint Work Statements and Cooperative Research and Development" spells out the information and format of the JWS, and is included in this chapter.

Also included in this chapter is the DOE guidance, "Stevenson-Wydler CRADA Guidelines," which describes the format and suggested content of the entire CRADA agreement.

Considerations When Preparing CRADAs

The following items must be considered and addressed in the CRADA documentation.

1. **Managing Conflicts of Interest.** Each CRADA must contain a list of all employees of the Laboratory who have a substantial role in the preparation, negotiation, or approval of a CRADA, and individual certificates for each person certifying that they are in compliance with the conflict of interest provisions of the Management and Operating (M&O) contract.

2. **Fairness of Opportunity.** The JWS must contain a statement of how the Laboratory complied with the CRADA provision that, to the extent possible, and consistent with programmatic considerations, LANL has encouraged access and utilization of capabilities, technologies, and facilities to qualified CRADA partners.

3. **National Security and Other Sensitive Information.** Any information deemed sensitive and not generally releasable shall be appropriately marked and controlled. CRADA partners' personnel must have appropriate clearances for access to this information.

4. **U.S. Preference.** CRADA activities are to be conducted to further U.S. national interests, including economic competitiveness, advanced industrial capabilities, and skills development of the American work force. The CRADA should state how this consideration is addressed.

5. **Resource Sharing.** An element of the tech transfer program is the concept of resource sharing between DOE, the Laboratory, and industrial partners. The JWS should address the equity of this arrangement.

6. **Intellectual Property.** Intellectual property may arise from the CRADA activities, and it is the responsibility of the Laboratory to identify and protect such property. Intellectual property issues should be identified in the JWS.

7. **Depreciation and Added Factor Costs.** DOE normally charges depreciation and added factor costs for use of DOE facilities and services by private sector participants, unless benefit to DOE programs can be shown. However, in the case of a CRADA, DOE depreciation and administrative overhead costs are shown as the DOE contribution to the value of the CRADA.

8. **Advanced Payments.** Under current DOE policy, advanced payments must be obtained from a CRADA partner before services can be performed, in those agreements in which there is a funds-in component. However, for a small business partner, special arrangements can be made. In those CRADAs of which a funds-in component is a part, advanced payment procedures should be addressed.

9. **Export Controlled Information.** Export Controlled Information (ECI) is that information that could not lawfully be exported by a private person without a validated license under any of several acts governing such activity. The Laboratory must advise partners and the DOE when ECI is expected to be used or generated in a CRADA activity. Such CRADAs will be tracked separately by DOE.

10. **Small Business Participation.** Technology transfer legislation requires that special consideration be given to small business and consortia of small businesses. The JWS should identify participation of small business and describe special consideration given by the Laboratory.

11. **Exempted and Exceptional Circumstance Technology.** Certain defense-funded technologies have been exempted from the contractor's (Laboratory's) right to elect to retain title to inventions. LANL should discuss with DOE any exceptional circumstance technologies that might be involved in a CRADA before submitting the JWS.

12. **Program Mission Impact.** The Laboratory must assure that a proposed CRADA activity is consistent with the assigned DOE programmatic mission. The CRADA must contain a program mission impact statement.

13. **Protection of Data.** Information that is commercially valuable may be provided by industrial partners and may also be generated by CRADA activity. Such information must be protected to retain its commercial value. At the same time, basic research results must continue to be broadly disseminated. The Laboratory must develop procedures to ensure identification and protection of commercially valuable information. LANL personnel are legally bound by the terms of nondisclosure agreements they sign.

14. **Construction/Facility Modification.** Any construction or facility modification of a DOE facility that will be part of a CRADA activity must be discussed with the DOE contracting officer before submission of the JWS. DOE approval is required for any construction project and any facility modification greater than $5,000; DOE will manage any such construction or modification, whether paid for by DOE or by the CRADA partner. The title to such facility shall remain with DOE.

15. **Equipment Accountability.** Equipment may be loaned between the Laboratory and the CRADA partner during the performance of a CRADA, and may be purchased specifically to support a CRADA. However, the Laboratory may not buy equipment from a CRADA partner. The JWS should contain identification of equipment to be loaned; the disposition of equipment to be purchased specifically to support the CRADA should be negotiated.

16. **Conditions for DOE Headquarters Approval.** The following arrangements for CRADAs will require approval by the appropriate DOE/HQ program office. More time will be required for this approval process.

    a) Significant foreign involvement.

    b) Lack of domestic private partner.

    c) Negative impact to a DOE program at the Laboratory.

    d) Construction or facility modification of $5,000 or more.

    e) Significant future liability potential or program burden.

DOE Policy

Admiral James D. Watkins, former Secretary of Energy, said the following in a statement before the U.S. Senate Committee on Energy and Natural Resources, February 22, 1989.

> "I know that the Department of Energy's national laboratories are home to some of the world's brightest and most innovative scientists and engineers. These creative minds are a precious national asset and will be encouraged not only to continue their basic research, but also to improve the process by which new technologies are transferred..."

Because of DOE ownership of LANL, most non-DOE work must be accepted and approved by the Albuquerque Operations Office of DOE on behalf of the Laboratory. Lab policy, of necessity, must be based on, and consistent with, DOE policy on reimbursable work. The following DOE Orders set out the fundamental policies in this area.

1. DOE Order 5600.1 states that "The utilization of the capabilities of the weapons complex in support of DOE's non-weapon responsibilities or other programs of national interest is encouraged but limited to the extent that such utilization does not adversely impact the weapon program."

2. DOE Order 4300.2B, Non-Department of Energy Funded Work, contains the principal policy statements in this area. This order **does not** apply to CRADAs. Work to be accepted on behalf of the Laboratory must

   a) be consistent with and complementary to DOE's mission and the mission of the Laboratory;

   b) not adversely affect execution of assigned programs of the Laboratory;

   c) not place the Laboratory directly in competition with the domestic private or public sectors;

   d) not create a potentially detrimental future burden on commitment of DOE resources;

   e) be consistent with DOE order 5600.1 (see 1 above);

   f) be consistent with the legislative authority of DOE;

   g) be consistent with humane treatment of human and animal subjects involved in research or other activities of the government;

   h) result in full cost recovery to DOE.

3. DOE Order 2600.6, Change 2, "Financial Accounting," replacing DOE 2100.10A, "Financial Policies and Procedures for Reimbursable Work," details financial arrangements including the requirement that funding be advanced before work is initiated and that no work continue when the funding has been fully obligated.

Laboratory Policy

Director Sig Hecker articulated Laboratory policy with regard to non-DOE-funded (reimbursable) work in his memorandum to Master Management, “Reimbursable Work,” dated October 15, 1987. In his memo, which is included in Chapter 1, he spells out the goals for reimbursable work, criteria for LANL’s accepting this work, and the responsibility for implementation of this policy.

All organizations of LANL are expected to comply with the following guidelines.

1. The Laboratory will accept only that work that is consistent with our mission.

2. LANL will not compete directly with the public or private sectors.

3. LANL will avoid circumventing the Competition in Contracting Act (CICA) and the Economy Act by accepting funds from other agencies of government solely for the purpose of aiding that agency in avoiding government procurement regulations (pass-through funding).

4. No organization may accept reimbursable work strictly to protect existing staffing levels.

Financial Policy

Procurements

The Laboratory cannot accept pass-through funds, that is, those funds from another federal agency to purchase for them goods and services it would be more difficult for them to procure on their own.

It is a violation of the Competition in Contracting Act for the Laboratory to accept funds from other federal agencies solely for the purpose of aiding those agencies in evading government procurement regulations. DOE/HQ has written a description of pass-through procurement which appears in Chapter 1.

Financial Reporting

Information to a sponsor concerning cost estimates can be included in the proposal provided that the detail is no greater than the levels on the BUCS operating plan. Requirements for each type of proposal are shown in the individual sections of this document.

Cost information may be reported to the sponsor, upon request, at the same levels mentioned above. A special report has been devised on BUCS, the Operating Cost Report (OCR), especially for such reporting. A sample OCR is furnished in this section. The following provisos should be kept in mind:

1. All official cost information must come from DOE/AL. They will give a single, YTD total only, but it is the only official cost data. LANL can supply the level of detail spelled out on the OCR; however, this information is unofficial.

2. All cost information for public dissemination (newspapers, radio, TV, government officials, etc.) must be coordinated through the Controller's Office. Project leaders and fiscal analysts may send the OCR to their sponsors as they see fit.

3. Names of specific persons, their salaries, or lists of individuals actually working on a particular program may not be supplied to any individual or organization outside the Laboratory.

4. No BUCS operating plans or accounting operating statements may be provided to anyone outside the Laboratory.

Responsibilities

The originator of the proposal, usually the Project Leader or Principal Investigator, is responsible for the accuracy and completeness of the proposal package.

Justification of Proposal—Statement of Uniqueness

To comply with the Competition in Contracting Act, the Laboratory must justify all reimbursable work. All proposals must be accompanied by a statement answering the following questions.

1. Why is it appropriate for this work to be done at LANL? Be exact, precise, and as detailed as necessary to make a strong case.

2. Why is the Laboratory uniquely qualified to perform this work? Again, be detailed and precise. A simple statement that we are not in competition with industry is not adequate.

No proposal will be approved by IPC without this justification.

Environment, Safety, and Health Considerations

A checklist, a copy of which appears in this section, has been developed to satisfy Laboratory and DOE objectives and requirements relating to environment, safety, and health (ES&H) considerations. This form, which must be completed and submitted to DOE/AL together with each non-DOE proposal, is intended to be responsive to increased public and employee interest and concern about ES&H.

ES&H Division has prepared this checklist, Form 1306; however, the responsibility for filling it out and assuring its accuracy rests with the Project Leader (Principal Investigator) and the appropriate line management. HS is available to provide guidance in completing the form, which is intended to assure that

1. ES&H is formally considered for each proposal;

2. Potential ES&H cost impacts (start-up, routine operations, shutdown, etc.) are considered;

3. Potential delays (due to preparing assessments, obtaining permits, modifying facilities, etc.) are considered; and

4. The Principal Investigator (PI) may request HS guidance before formal proposal approval.

The ES&H checklist is the departure point when an extended level of analysis is needed. If such a level of analysis is required, the PI must allow sufficient time for review by HS. In some circumstances the questionnaire and follow-up analysis may be necessary to accurately estimate all costs and time schedules. It would be helpful if PIs evaluated their ES&H concerns as early as possible in the proposal development process. See AR 1-10, found in the Laboratory's Environmental, Safety, and Health Manual.

The ES&H Division point of contact is ES&H-3, Facilities and Safety Analysis Section, MS K489, 5-4673 or 7-2703. Please send a copy of the checklist to ES&H-3.

Security and Classification

All proposals that identify classified work to be done on site at the Laboratory must be accompanied by Form 1309, Security Considerations for Non-Intelligence-Related Proposals, a copy of which is supplied in this section. The package must be routed for signature through OS-lO, G728, 5-1212. This requirement applies only to proposals for work to be done here at LANL; if the portion of work to be done here is not classified, but will be added to classified work to be done at a sponsor's site, the LANL proposal is not classified, and does not need the security form or OS signature. Address all questions on classification to OS-lO.